Program Outcomes

Evaluating, Measuring, and Identifying
Patient Care Benefits and Cost Reduction

Kansas Medical Assistance Program
Retrospective Drug Utilization Review
Provider Education and Intervention Program

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Executive Summary

This *Outcomes Assessment* report prepared for the Kansas Medical Assistance Program shows the expected improvements in beneficiary health and cost savings from using retrospective drug utilization review and provider education to effect appropriate prescribing and utilization and, in turn, prevent adverse drug reactions and reduce costs in a targeted beneficiary population.

Program Summary

Analysis of trials involving various antiepileptic agents (regardless of indication) showed an increased risk of suicidal thoughts/behavior observed as early as 1 week after initiation and continued through duration of trials. Patient should be monitored for notable changes in behavior that might indicate suicidal thoughts or depression.

Therapeutic duplication of mood stabilizers may cause increased side effects, drug interactions, and cost, as well as decreased adherence to therapy. Therapeutic use of more than one mood stabilizer should be justified with strong evidence (e.g., acute treatment of a severe manic episode) before being implemented.

Changes in Criteria Exceptions

At the 6-month evaluation post intervention, appropriate utilization was significantly improved in the target population. Six months after letters were mailed to the prescribers, 36 of the original 39 beneficiaries had at least one claim for any drug and could be evaluated. **Of those remaining 36 beneficiaries, 61% of those who were previously found to meet the criteria no longer had the same therapy issue that their prescriber received a letter about.** Based on improved utilization, it is clinically probable that serious adverse outcomes were avoided, and overall drug utilization was significantly reduced.

Criteria	PRE-Intervention	POST-Intervention		
	Beneficiaries with Letter Mailed	Beneficiaries with Any Drug Claim	Beneficiaries with Same Criteria Exception	% Decrease in Criteria Exceptions
Antiepileptics	39	36	14	61%
Mood Stabilizers	0	N/A	N/A	N/A

Background

Health Information Designs (HID), in coordination with DXC Technology, currently performs retrospective drug utilization review (RetroDUR) for Kansas Medical Assistance Programs' fee-for-service population. The total number of unique beneficiaries enrolled in the traditional Medicaid fee-for-service population in State Fiscal Year (SFY) 2019 (July 1, 2018 – June 30, 2019) was 20,002. Prescription claims for approximately 2,745 beneficiaries were processed each month in SFY 2019.

Beneficiary Identification and Prescriber Intervention

In an effort to promote appropriate prescribing and utilization of medications, HID identified beneficiaries receiving anticonvulsants and mood stabilizers (April interventions) and mailed educational letters to their prescribers. When more than one prescriber was attributed to pertinent claims on a patient profile, letters were mailed to all relevant prescribers.

While the intervention letter itself only addressed the medications included in the intervention, HID included a 6-month history of drug claims and diagnoses along with the letter. Prescribers had the opportunity to review the entire beneficiary drug and diagnosis history and make changes to therapies based upon this information. For this reason, whenever intervention letters are sent to prescribers, the impact on total drug utilization should be measured. Therefore, total drug utilization in the targeted population was evaluated for 6 months before and after intervention letters were mailed to determine any change in drug cost.

Analysis Methodology

Each month, HID evaluates Kansas Medical Assistance Program pharmacy claims data against thousands of proprietary criteria. The criteria are developed and maintained by HID clinical pharmacists who review package insert updates, as well as medical literature, to develop the criteria.

Criteria Evaluated

The following criteria were reviewed for the intervention letters mailed in April 2019.

- **Drug (Actual) Disease Precaution:**
  - Risk of suicidal thoughts or behavior in patients taking anticonvulsants.
- **Therapeutic Duplication:**
  - Therapeutic duplication of mood stabilizing agents may be occurring.

Beneficiary Selection

The drug history profile for each beneficiary was reviewed by a clinical pharmacist to determine if the beneficiary should be selected for intervention.

After beneficiaries were selected for intervention, educational intervention letters—including a complete drug and diagnosis history profile listing all pharmacy and available diagnosis claims data for the past 6 months—were mailed to the appropriate prescribers. (Prior to mailing, generated letters undergo a quality assurance process. Some letters are not mailed due to various reasons, including missing or invalid prescriber addresses.)

Criteria	Beneficiaries Reviewed	Beneficiaries Initially Selected for Intervention	Letters Generated
Anticonvulsants	49	39	41
Mood Stabilizers	17	0	0

Once a beneficiary was selected for intervention, the criteria were suppressed by the DUR system for that beneficiary for 6 months.

Prescriber Response Tabulation

The intervention letter and drug history profile included a response form that allowed the prescriber to provide feedback and enabled HID to determine whether any action would be taken in response to the letter. The response form includes standard responses printed on the form that allow the prescriber to check a box for the response that best fits their intended action, as well as space for written comments from the prescriber.

The prescribers were encouraged to return the response forms using the self-addressed stamped envelope included with the intervention letter or via fax. HID tracked all response forms returned as well as all written-in comments from prescribers for evaluation. See the Results section for these numbers.

Evaluation of Changes in Criteria Exceptions

In an effort to determine the impact of the intervention letters independent of prescriber responses, beneficiary claims were evaluated 6 months after letters were mailed. Since the letters were mailed in April 2019, the 6-month follow up was performed in December 2019. HID first determined how many of the selected beneficiaries continued to have Medicaid benefits and still had active eligibility by determining how many had any claim for any drug in the post-intervention period (April 2019 – November 2019). Following that, HID determined who still met the same criteria after the post-intervention period, in December 2019. See the Results section for these numbers.

Limitations

One limitation resulted from the fact that no eligibility data was available to determine whether beneficiaries continued to be eligible for Medicaid for the full 6 months before and after intervention letters were mailed. Therefore, as a means to test for Medicaid eligibility when calculating cost avoidance, HID determined how many beneficiaries had any claim for any drug during both the pre-intervention period and the post-intervention period. Those beneficiaries who did not have claims in both periods were not included in the follow-up analysis. It is possible that some patients who had Medicaid eligibility may have been excluded from the follow-up analysis if they had no recent pharmacy claims.

The same eligibility process was applied to the changes in criteria exceptions.

Results

Prescriber Responses to Intervention Letters

A total of 2 coded responses were received from the prescribers who were sent an intervention letter, for a response rate of 4.9% with 2 coded responses. Coded responses are shown in the table below; the following section provides examples of written comments.

Response	Number
Reviewed information and continuing therapy without change	1
Prescriber did not write prescription attributed to them	1
Total Responses	***2***

Prescriber Feedback on Intervention Letters

In addition to being able to provide information about their course of action following receipt of the intervention letter, prescribers are also able to provide additional feedback on intervention letters. Out of the 2 coded responses received, 1 provided additional feedback, with ranking it as “Neutral”.

Results Discussion

Within the targeted beneficiary population, improvements in utilization were noted. Six months after intervention letters were mailed, a population of 36 patients had enough data available to evaluate. Of these patients, all of whom met criteria prior to the mailing of prescriber letters, 61% no longer met the same criteria 6 months after the letters were mailed.

All drug claims data and some diagnosis data are available for analysis. Any diagnosis data available is processed along with the pharmacy claims data to provide as complete a drug and diagnosis history as possible for each beneficiary. Medical data that includes the cost associated with hospitalization, doctor visits, and emergency room visits is not analyzed as part of the RetroDUR program. However, it is suspected that by improving utilization and the monitoring for adverse events, other medical-associated costs due to adverse drug effects would be reduced, in addition to the reduction in drug expenditures.

Conclusion

The prescribing and utilization of anticonvulsants and mood stabilizers was reevaluated after intervention letters were mailed to prescribers for targeted beneficiaries. For beneficiaries with data available for follow-up 6 months after letters were mailed (36 beneficiaries), 61% of them no longer met the same criteria (22 beneficiaries). However, the 14 patients remaining on therapy were no longer in fee-for-service (FFS).

Prescribers were encouraged to return response forms to indicate their intended action following the receipt of the intervention letter and patient profile. The response rate was 4.9%. 2 response forms were returned indicating the prescriber’s intended action and 1 feedback form was returned.

